The fiscal crisis in the health sector: Patterns of cutback management across Europe

Title:
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Keywords:
Financial crisis, fiscal crisis, cut back management, Europe

Abstract:
Purpose: The article investigates trends in health sector cutback management strategies occurred during the ongoing financial and fiscal crisis across Europe. Setting: a European-wide survey to top public healthcare managers was conducted in ten different countries to understand their perception about public sector policy reactions to the financial and economic crisis; answers from 760 respondents from the healthcare sector (30.7% response rate) were analysed. Method: A multinomial logistic regression was used to assess the characteristics of respondents, countries' institutional healthcare models and the trend in public health resources availability during the crisis associated to the decision to introduce unselective cuts, targeted cuts or efficiency savings measures. Results: differentiated responses to the fiscal crisis that buffeted public finances were reported both across and within countries. Organizational position of respondents is significant in explaining the perceived cutback management approach introduced, where decentralized positions detect a higher use of linear cuts compared to their colleagues working in central level organizations. Compared to Bismark-like systems Beveridge-like ones favour the introduction of targeted cuts. Postponing the implementation of new programmes and containing expenses through instruments like pay freezes are some of the most popular responses adopted, while outright staff layoffs or reduction of frontline services have been more selectively employed. Conclusion: to cope with the effects of the fiscal crisis healthcare systems are undergoing important changes, possibly also affecting the scope of universal coverage.

1. Introduction

The paper provides empirical evidence from ten countries in Europe about the pro-cyclical approaches adopted by public managers to tackle the shrinkage of funds buffeting the health care sector, as a consequence of the ongoing financial, economic and fiscal crises [1,2]. Pro-cyclical approaches to the global financial crisis advocate reducing public spending and achieving savings in times of financial constraints, in contrast to counter-cyclical approaches that advocate public spending to boost the economy [3]. Reduction in spending on public healthcare service in order to curb public debt appears to be quite a popular policy among European governments since the outbreak of the crisis, though adopted at different speed and intensity [4-6].

Since 2009, health spending has slowed markedly its growth or fallen in many European countries, after years of continuous growth. Data from a representative sample of European countries included in the empirical study, namely Austria, Estonia, France, Germany, Hungary, Italy, Norway, Spain, The Netherlands and the UK show that overall public health expenditure trend has experienced a positive growth from 2000 to 2009 with different magnitude across countries, followed by a

persistent decline that started earlier in the eastern European countries (Hungary and Estonia) (Figure 1). Specifically, per capita government health spending over the period 2000-2009 is estimated to have grown on average, in real terms, by 3.9% annually. In stark contrast, over the subsequent three years (2009-12), average public health spending yearly increased by just 0.93% as an effect of the economic crisis that buffeted public finances (Figure 2). The extent of the slowdown in public health spending has varied considerably across Europe affecting mainly those in the easternmost part due to severe macroeconomic downturns [6, 7]. Estonia, for example, recorded an annual average decrease in per capita public health spending by negative 0.4% between 2009 and 2012, after a yearly growth rate of more than 5% between 2000 and 2009. Also the Netherlands, the UK, Spain and Italy have experienced significant reduction in public spending during "crisis-time" compared to the average growth rate before "crisis-time" (almost 5 point decrease in the Netherlands and the UK and about 3.5 in Spain and Italy).

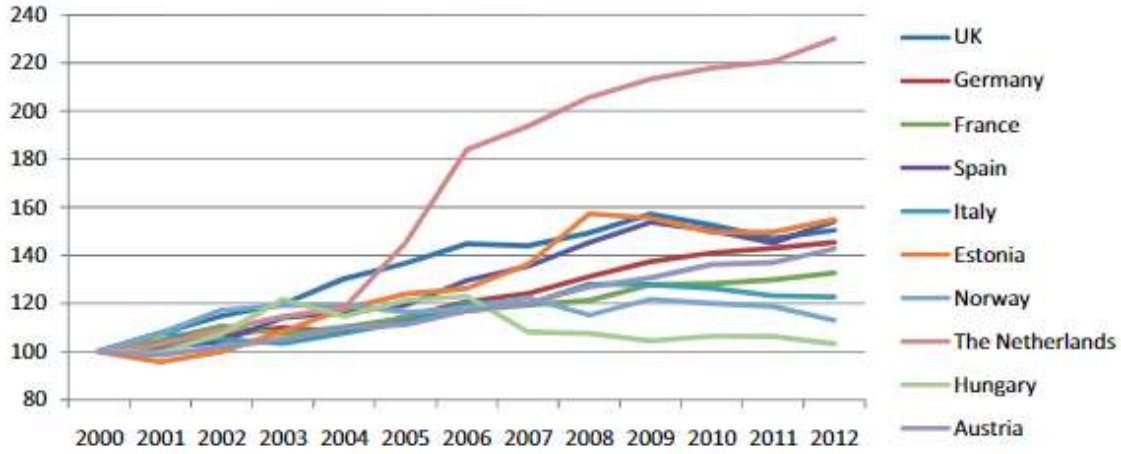

Fig. 1. Per capita public health expenditure trend 2000–2012 (base year 2000).

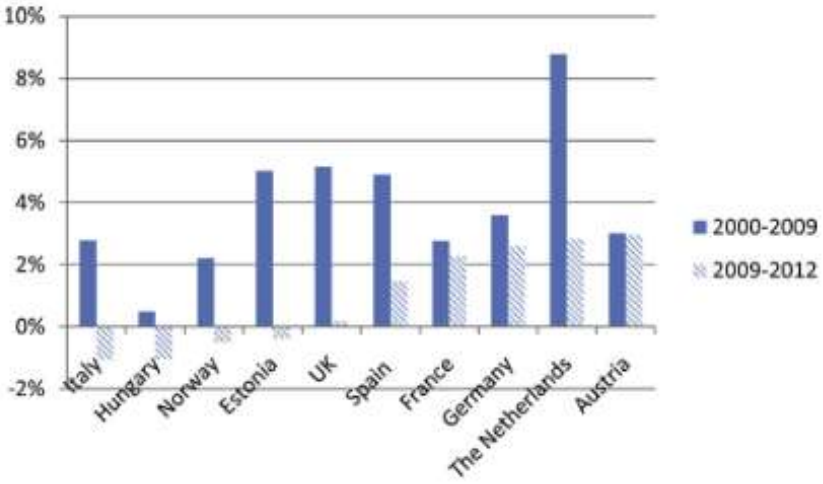

Fig. 2. Annual average growth rates (%) in per capita public health expenditure, real terms, 2000–2009 and 2009–2012. *Note*: Real growth rate are calculated using GDP deflator.
Source: [8,9].

Against the backdrop of a tough reduction in the annual average growth rate in per capita health expenditure, it is significant from both a social scientific and a policy standpoint to gain insights into the ways in which public managers coped with the challenges to the quality and universality of health services across Europe. Accordingly, this contribution provides timely and large-scale empirical evidence on the perceptions of executive public managers in the healthcare sector about the patterns of response adopted by their respective countries to manage cuts and the specific measures employed. More specifically, three basic approaches to cutback management have been identified [10]: proportional cuts across the border (i), the adoption of targeted cost containment policies (ii), or the search for productivity and efficiency gains (iii); specific data have been collected about the usage of these approaches. Moreover, a series of cost reducing measures that can be used often in combination as tools for effecting the chosen cutback management approach have also been identified (e.g., personnel policies like staff layoffs or pay freezes and cutting existing programmes or postponing new programmes, etc.); another specific set of data about the usage of such tools have been collected. In fact, the usage of the cutback management approaches and the tools for cutting operational expenses across ten representative European countries is analysed by means of primary data gathered from a survey administered to top public healthcare executives. Using multinomial logistic regression analysis, the paper empirically identifies the influence of top managers' demographic and organizational characteristics, healthcare institutional arrangements and magnitude of public healthcare expenditure reduction on the patterns of cutback management deployed in response to the extant major fiscal crisis in Europe. The contribution also examines country preferences in the use of specific cost reducing measures and tools employed for coping with the reduction in public funding.

Overall, the article contributes to informing the current debates on the strategic and managerial approaches adopted in public health service delivery to cope with the mounting financial and fiscal crisis in Europe [5]. We first give an overview of the reference literature on cutback management approaches and the ways in which they combine [10], to then provide a description of the empirical setting (sample and data collection) and present data from the ten European countries. Data are analysed by gauging both individual-level and country-level variables. Discussion and conclusion follow.

2. Cutback management approaches: a framework of reference

Detailed categories of approaches to cutback management in public administration have been elaborated in the literature, notably following up the seminal article by Levine [11] and interest in these approaches has mounted in the current debate about the post-2008 financial, economic and fiscal crises. Traditionally, the literature discusses specific features of public sector responses to recession or austerity times, such as cutback budgeting and termination of programmes, or leadership tactics for managing decline [12]. Interestingly, recent publications show a concern for the longer-term implications of the relationship between cuts and reforms, and discuss underlying issues in managing the new responsibilities of governments [1,2,13].

As noticed by Peters et al. [2], crisis may not be "the most felicitous time to begin to think about restructuring government and creating new procedures. That type of restructuring within the public

sector is itself disruptive, and attempting to implement institutional change in the midst of a crisis may appear to be a recipe for confusion and failure" [2:16]. However, crises may also be triggers of change. This article is concerned with the empirical questions of what governmental approaches have been selected to cope with decreasing levels of available resources and what differences can be detected across Europe.

Among the cutback management strategies usually adopted by public organizations, Pollitt [10] identifies three basic stances or approaches [14-15]: cut-across-the-board, targeted cuts and productivity or efficiency gains. Across-the-board cuts (or linear cuts) are interpreted as the "traditional" response and refers to cuts in equal amounts or percentages for all institutions, while targeted cuts imply that some institutions and sectors face a larger cut than the others As suggested by Kickert [4], this distinction resembles the classical dichotomy between incremental decision making and rational-comprehensive decision-making. Finally, achieving productivity or efficiency gains requires deploying a consistent reform strategy, often including a mix of provisions, such as exploiting technological innovation, setting priorities in services provision and user needs, using non-service approaches, building new relationships and creating alliances, and others [14]. More rapid adjustment policies within existing institutional structures include attempts to reduce the prices of the main production factors, labour and capital, by slowing down health sector wage, reduce number of staff or rescheduling investments [16].

Specifically, the first, and in many respect the easiest one, lies in effecting proportional cuts across-the-board (also called "cheese-slicing" [10], "decrementalism" [17-19], and "equal misery" approach [20]), across all areas (i.e., decrementalism). Policies following this approach result in linear reductions of the funding of the health system across its compartments. Such approach may destabilize the health system if it erodes financial protection, equitable access to care and the quality of care provided, possibly increasing healthcare and other costs in the longer term. In addition to introducing long-term inefficiencies, cuts across-the-board are unlikely to address existing inefficiencies, potentially exacerbating the fiscal constraint [5].

At the opposite side, Pollitt [10] places targeted cuts, that is, cuts driven by political, institutional, and organizational priorities adopted, e.g., to protect poorer people, to concentrate resources on the needy or to prevent adverse effects on employment [6]. The "targeted" or "selective" cuts approach has been conceived of as involving an array of possible tactics, ranging from "strategic prioritization" and "managerial" to "ad hoc" or even "random" (or garbage can) cuts [18; 11;21-23]. As a consequence some organisations and areas of public policy face a larger reduction in outlays than others. When proceeding with selective cuts based on strategic prioritizations, their assessment is crucial and conflicts might arise, since sectors, organizations or subunits within the same organizations face different levels of retrenchment. In the case of healthcare provision, cuts can directly affect patients by selectively redefining contribution schemes, benefits or limiting tax subsidies for out-of-pocket payments. For example, France selectively increased contributions asked for wealthier people (self-employed people with very high incomes) while Denmark reduced tax subsidies for out-of-pocket payments that predominantly benefit wealthier households [6].

In-between the two approaches, and in a certain sense at another level because this is potentially a "definitive" solution, the literature identifies a third approach that refers to cost containment measures based on productivity and efficiency savings. This response reflects the intention of

avoiding the harms of expenditure cuts by reaping the benefits of increased productivity and efficiency gains. Efficiency gains imply achieving similar outcomes at lower costs (technical efficiency), or better outcomes at similar cost, including increasing the value of the output or the appropriate combination of health programmes to maximize the health of society (allocative efficiency) [5;24]. As already hinted to, this is seen as a potentially definitive solution, because efficiency gains may potentially shift the trade-off and avoid, partly or entirely, the pains of effecting cuts. For instance, some countries strengthened policies to improve prescribing and achieve greater use of generic drugs, or improving procurement processes often by centralizing procurement (France, Italy and Spain), but also through tendering and selective contracting (Hungary and the Netherlands) or e-prescribing systems, while a number of countries reported taking steps to intensify the use of Health Technology Assessment in making decisions about coverage (Spain, France, Germany and Norway) [6].

However, this approach may turn out to be unfeasible, and it anyway requires longer time horizons than afforded by the contingencies of the fiscal crisis that has stricken European countries quite hard since the burst of the financial bubble in 2008. We can refer to a combination of the second and third approaches (priority setting plus efficiency gains) as a "strategic response to the fiscal crisis". More in detail, a strategic approach to cutbacks would entail "(i) a multiyear time frame, usually three to five years; (ii) a significant reallocation and reconfiguration of resources; (iii) substantial changes in organizational structure and work force activity; and (iv) a comprehensive as opposed to an ad hoc re-examination of the organization's problems, mission, and structure" ([17], p. 691). All these elements require strong political commitment and organizational leadership.

Evidence suggests that governments use a mix of across-the board and targeted cuts, and at a lower extent productivity or efficiency gains when facing resource constraints [8].

3. Empirical setting and data collection

To gain specific and up-to-date insights into the cutback management approaches effected in the healthcare sector across Europe during the extant fiscal crisis, the paper uses data from one section of the European-wide survey developed as part of the EU Seventh Framework programme research project "Coordinating for Cohesion in the Public Sector of the future" (COCOPS, see www.cocops.eu) carried out in 2012. The survey included a total of 31 core questions which aimed at capturing experiences and perceptions of public sector executives on public sector reforms (especially New Public Management - style reforms) and their effects (performance, but also on other factors such as public sector values/identities, coordination or social cohesion). In addition, one section of the survey was dedicated to understanding the impact of the fiscal crisis on public administrations and the responses deployed by public decision-makers. We used the data collected through this section to conduct our analysis.

The survey was based on an elite-questionnaire jointly developed by an international research team and translated into different language. The questionnaire was distributed to public sector executives working in central ministries and two policy sectors - employment and healthcare - in ten European countries based on a full census strategy. The full census strategy was possible because of the extensive country-level mapping of public administrations developed by project partners and

country experts [24]. The countries to be included were: Austria, Estonia, France, Germany, Hungary, Italy, Norway, Spain, The Netherlands and the UK. The selection criteria have been a combination of purposive sampling and opportunistic considerations. The "opportunistic" side lies in the fact that the survey was launched as part of an EU-funded project[1]: decisions about countries to be included were taken at the level of the research project consortium, and where mainly dictated by the location of the eleven partners of the project. However, survey design was accurately elaborated and countries were selected based on the criterion of ensuring variation along a number of parameters (from size and importance of the public sector to the extent of the impact of the financial and fiscal crisis, and across the various administrative traditions in Europe, etc.), which led to the *ad hoc* inclusion of countries beyond the location of project partners (such is the case of Austria). The survey was sent electronically and was accessible anonymously on a web platform and in few cases was also forwarded via postal invitation (France, Germany and UK) to a total of about 19,600 high-ranking public executives[2].

Executives of the first two top-hierarchical levels in the public bureaucracy - below politically appointed state secretaries - were surveyed in all selected countries (where deemed necessary by the country-team, the third level was also approached or allowed for answers to achieve a larger sample base). In general, directors, board members and deputies comprise the first level, while executive managers make up the second tier. Thus, the population reflects top and medium-high level civil servants in charge of policy-making and implementation rather than delivery of services who are most likely to hold the relevant knowledge regarding reforms and developments with the public sector of their country. Given the expected differences in the national administrations, some variation in the country samples was introduced. The guiding principle in creating the survey sample was to a achieve comparability between all of the national samples [25].

4. Results

A total of 760 valid filled-in questionnaires (i.e., surveys with more than 25% of the survey items completed) were received from officials working in the healthcare sector, corresponding to a high response rate (30.7%) considering the position at the top of the organisational hierarchy of respondents. The distribution of respondent over the ten countries surveyed is unbalanced and ranges from a minimum of about 30 responses received from The Netherlands and The UK to more than 100 collected from Austria, Italy and France. Roughly two thirds of the executives included in the healthcare sample were male (62.6%), with average age between 46 to 55 years old, and nearly 90% hold a postgraduate degree (master level) (Table 1). The majority of respondents worked at regional or local governmental level public health organization (62.7%), decentralized to the level

[1] European Union Seventh Framework Programme under grant agreement No. 266887 (Project COCOPS – "Coordinating for Cohesion in the Public Sector of the Future"), Socio-economic Sciences & Humanities.

[2] More specifically, the questionnaire was developed by ten research teams under the guidance of the team (four persons) at Hertie School of Governance in Berlin, leading partner for work package 3 of the project "Coordinating for Cohesion in the Public Sector of the Future" (COCOPS), a project of the Seventh Framework Programme (grant agreement No. 266887). Questionnaire structure and mode of delivery was discussed at several meetings the questionnaire was then translated into the national languages of the selected countries and delivered supported by an on-line platform. A pilot was run in each country (about ten respondents native of each country and fluent in English were asked to comment on the questionnaire) before the delivery. The Department for Public Administration and other relevant bodies in each country were preliminarily approached.

of Länder, Regions or Autonomous Communities in a number of countries (e.g., Austria, Germany, Italy and Spain). More than half of the sample executives (54.8%) accrued more than 20 year seniority within the public sector and another 28.3% reported to be working in the public sector for more than 10 years. Moreover, about 70% of the respondents had previously had a working experience in private (commercial) sector, while less than half had any experience working in the non-profit sector.

Table 1
Sample descriptive statistics.

N	Variable	Descriptive statistics				
		Obs.	Mean	Std. dev.	Min	Max
1	Gender	679	0.626	0.484	0.0	1.0
2	Age	688	3.133	0.861	1.0	5.0
3	Education level	670	2.10	0.561	1.0	3.0
4	Organization type	746	2.99	1.19	1.0	5.0
5	Seniority pub. sector	675	4.30	0.928	1.0	5.0
6	Work experience private sector	638	0.713	0.453	0.0	1.0
7	Work experience non-profit sector	506	0.476	0.499	0.0	1.0

4.1 Main approaches used to cutback management

The questionnaire contained a few questions on the fiscal crisis and one is especially relevant for our research, as it is directly probing for managers' perception about the extent of use of the three basic cutback tactics (i.e., cut-across-the-board, targeted cuts, and productivity or efficiency gains) aimed at realizing savings in the healthcare sector [10]. A total of 624 answers were collected for this item and Figure 3 shows response frequencies for all the countries included.

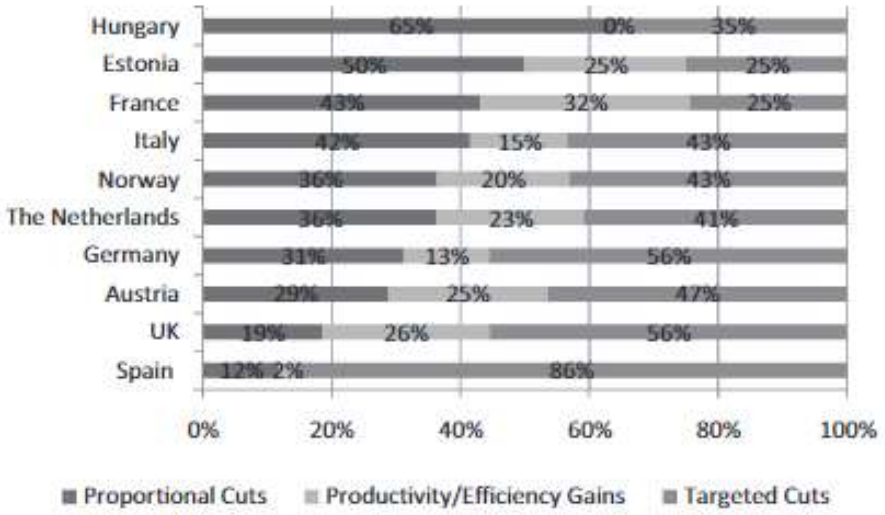

Fig. 3. Cutback measures at country level.

Data suggests that both proportional and targeted cuts are the two most common options adopted to cope with the financial crisis, whilst developing policies aimed at attaining efficiency or productivity gains is the least popular approach. The survey reports targeted cuts to be the relatively

most frequently employed (41.7%) followed by proportional cuts (37.2%), while only 21.1% of the respondents around Europe perceived productivity and efficiency gains as the general approach to cutback management. Interestingly, Figure 3 reveals differences across jurisdictions, whereby certain systems display a strict preference for one of the three approaches, such as Hungary towards proportional cuts or Spain inclined to policies of targeted cuts, the majority of countries display rather high within-country heterogeneity.

Given this noticeable heterogeneity of individual responses, we investigate whether individual-level characteristics influence the likelihood of resorting to one or the other of the cutback approaches. Specifically, we are interested in understanding whether demographic characteristics of respondents, their position within the healthcare system and their work experience influence the probability of selecting one of the possible alternative cutback approaches.

Moreover, we study whether the institutional configuration of the country healthcare system (i.e., the social security model financing each country's healthcare system) - Bismarck or Beveridge-like model - can help predict the likelihood of selection of one of the three general cutback management approach. By doing this we include the "influence of the past", i.e. how the basic traits of the healthcare system as it has consolidated over the years affect executive choices; the theoretical perspective we adopt here is one rooted in historical institutionalism, that puts emphasis on the assumption that institutions, once formed, shape the range of possibilities and have a continuing and largely determinate influence over the choices that will be made at all levels and phases of the policy cycle [26-27].

Although recent literature noted that reform trends across European healthcare system could suggest a process of convergence [28], structural differences (i.e., heterogeneity in organizational design and governance) between Beveridge and Bismarck-type systems are still present. In general, a National Health System, or Beveridge-like healthcare model, is characterized by a centrally organized system that provides universal coverage, is funded by general taxation, relies predominantly on public providers and its budget is strictly controlled and competes with the other government spending areas. On the other hand, Bismark-like healthcare systems are managed by health insurance funds regulated by the government but are financed mainly through payroll deduction and services are provided by a mix of public and private providers, therefore financial stewardship of the system is shared between the government and the health insurance funds. In our analysis among the Beveridge systems we include, Italy, Norway, Spain and the UK; in the Bismark system countries we acknowledge Germany, France, the Netherlands and Austria, while Hungary and Estonia are categorised as moderate Bismark systems [29]. We include the latter model because both Eastern European countries at the end of the 1990s have undergone a reform that established centralized National Health Insurance Funds with mandatory coverage, thus the system resembles a national health care system financed by a social health insurance regime [29]. Finally, preference for certain government responses to the crisis may differ also due to level of available public healthcare resources (whether increasing or decreasing budget). Indeed, Bartle [30] argues that approaches to cuts depend on resource availability, whereby no growth in public spending would lead to the denial of the crisis and delayed responses; moderate decline in public spending would favour decremental approaches (like across-the-board cuts); severe revenue decline would trigger

termination of programmes, reduction of services and layoffs. Hence, the magnitude of public healthcare expenditure growth during the crisis (annual change over 2009-2012) is included in the analysis.

To predict the probability of selecting one of the three identified cutback approaches we have run a multinomial logistic regression with three uncorrelated nominal alternatives in the dependent variable: proportional cuts (1); productivity and efficiency savings (2); and targeted cuts (3). Estimates are carried out running multinomial logistic regression on Stata/SE 13 software. Cases with missing values on the dependent variable are deleted prior to the analysis. Data are set as paired-choice respondent (i.e., long shape) to analyse the probability of each respondent over the three alternative outcomes. Table 2 shows the findings. Coefficients are reported as relative-risk ratio, or the exponential value of multinomial logit coefficients, where risk is measured as the risk of the outcome relative to the base outcome [30]. Results have to be interpreted in relation to the third category of the dependent variable (targeted cuts) which serves as our base category.

Table 2
Regression results: modelling cut back preferences.

Variables	Model 1		Model 2		Model 3	
	Eff. savings vs target cuts	Prop. cuts vs target cuts	Eff. savings vs target cuts	Prop. cuts vs target cuts	Eff. savings vs target cuts	Prop. cuts vs target cuts
Male	1.287	1.117	1.222	1.223	1.180	1.067
Less than 55 years old	0.901	0.637**	0.901	0.642**	0.911	0.694*
High seniority public sector	1.166	0.781	1.143	0.820	1.210	0.861
Decentralized org. position	1.557*	1.465**	1.471*	1.631**	1.589**	1.489**
Bismark model	2.441***	1.867***				
Full Bismark model			2.545***	1.635**		
Moderate Bismark model			1.505	3.457***		
Yearly public health expenditure growth (2009–2012)					1.180**	0.956
Constant	0.199***	0.753	0.216***	0.653	0.290***	1.071
Log-likelihood chi2 test	29.69	40.39	21.34			
d.o.f.	10	12	10			
Pseudo R^2	0.0241	0.0328	0.0173			

*** $p<0.01$.
** $p<0.05$.
* $p<0.1$.

The regression results show that for respondent over 55 years old there is a significant higher probability of selecting across-the-border or proportional cuts rather than targeted one. But when controlling for executive seniority (37.5% correlation with age) the significance disappear, even though efficiency savings are preferred options compared to both proportional and targeted cuts for more senior executives. Looking at respondents' organizational level, there is a consistent significant ($p<0.05$) higher probability that executives working in decentralized healthcare organizations (either at regional or local level) perceive proportional or linear cuts to be more frequently used rather than targeted or prioritized cost-containment measures compared to their colleagues working in central level organizations. When considering the country healthcare institutional arrangement, Bismark models, compared to Beveridge models, display more than double the probability of selecting efficiency gains approach (i.e., trying to do the same with less resources – whereby safeguarding the levels of outcomes acquires priority status) compared to targeted cuts ($p<0.001$), and also a higher probability of choosing linear cuts rather than targeted one ($p<0.001$).

When we disaggregate Bismark model countries between full and moderate Bismark one (Model 2), the full Bismark cluster confirms the results of Bismark countries, with a less significant probability

of proportional cuts preference ($p< 0.05$). On the other hand, the choice of introducing linear cuts gains 3.4 higher probability ($p<0.001$) among moderate Bismark countries (Estonia and Hungary) compared to Beveridge countries. Thus, among the more general Bismark cluster of countries, proportional cuts are driven by moderate Bismark model.

Finally, Model 3 introduces how the annual trend in public healthcare resources (2009-12) influences the probability of selecting one of the three cutback management approaches across countries. It is interesting to notice that at increasing levels of available resources there is almost double the probability that countries introduce efficiency savings strategies compared to targeted cuts ($p<0.05$), and the direction of proportional cuts compared to targeted cuts is negative. This result suggests that even European countries that could rely on an increasing level of public healthcare spending during the crisis tended to introduce some type of cutback management to keep the system efficient and sustainable; specifically, countries that are better off financially tend to pursue efficiency gains strategies.

4.2 Measures and tools for public expenditure reduction

The cutback management approaches that we have been examining so far represent the basic stance adopted by European countries for coping with the fiscal crisis. There is another piece of evidence which we deem to be of interest for the reader: the 'concrete' measures or tools specifically employed for coping with the reduction in public funding. Based on a review of literature [1, 12], a list of management tools with which public organisations may cope with a reduction in funding have been identified. They are: staff layoffs; pay cuts; hiring freezes; pay freezes; reducing front line; reducing back office; cuts to existing programmes; postponing or cancelling new programmes. These tools are instruments for cutting operational expenditures (personnel and non-personnel expenditures) or programme expenditures (altering scope and depth of programmes and their financing) and they may be used in combination (for example, it is possible to both cut existing programmes and postpone or cancel new programmes).

As discussed above, this is a further dimension of the study we have conducted: tools may refer to different basic approaches to cutback management: for example, cutting existing programmes may be used as tool either for effecting cut-across-the-board or for achieving targeted cuts; as another example, reducing the back office may be done either as part of an efficiency-gain approach, to deliver the same outputs with less resources, or as part of a cutting – either linear or targeted – approach.

A specific and distinctive question in the survey assessed how top executives in the public healthcare sector across Europe perceived the use of each of the cutback measures presented. Specifically, responses were given according to the 7 item Likert-scale, being 1= Not at all and 7= To a great extent. Because we are interested in discriminating responses between lower and higher bound in perception of use of the cutback instruments, results are aggregate as follows: 1 to 3 represents low to moderate level, while 5 to 7 represents moderate to high level of implementation, while answers reporting the mean value equal to 4 on the Likert scale have not been included. Evidence is reported in Table 3.

Table 3
Countries general approach to savings due to the financial crisis. Aggregate responses in order of popularity (from less to more popular).

	Staff layoffs		Pay cuts		Reducing front line presence		Downsizing back office functions		Pay freezes		Cuts to existing programmes		Postponing or cancelling new programmes		Hiring freezes	
	Low to moderate (1–3)	Moderate to high (5–7)	Low to moderate (1–3)	Moderate to high (5–7)	Not at all (1–3)	To a large extent (5–7)	Not at all (1–3)	To a large extent (5–7)	Low to moderate (1–3)	Moderate to high (5–7)	Not at all (1–3)	To a large extent (5–7)	Not at all (1–3)	To a large extent (5–7)	Low to moderate (1–3)	Moderate to high (5–7)
Italy	96%	4%	77%	8%	57%	27%	43%	38%	41%	50%	41%	40%	35%	46%	30%	63%
Norway	77%	15%	98%	0%	82%	7%	87%	0%	91%	2%	68%	14%	65%	22%	65%	24%
Spain	73%	20%	5%	88%	65%	18%	68%	22%	8%	88%	10%	76%	3%	88%	7%	85%
UK	33%	63%	75%	17%	44%	44%	11%	74%	4%	92%	11%	70%	23%	50%	11%	85%
Austria	100%	0%	92%	3%	77%	10%	52%	28%	57%	32%	43%	39%	26%	59%	40%	55%
Estonia	41%	47%	33%	63%	44%	34%	28%	59%	13%	88%	30%	47%	23%	58%	28%	56%
France	92%	4%	88%	6%	35%	45%	20%	68%	38%	50%	26%	61%	28%	59%	7%	86%
Germany	98%	0%	81%	10%	62%	17%	40%	40%	68%	21%	31%	49%	41%	52%	28%	60%
Hungary	3%	87%	53%	27%	54%	25%	17%	63%	71%	23%	23%	65%	13%	77%	3%	94%
The Netherlands	71%	19%	73%	14%	41%	27%	19%	57%	41%	45%	24%	62%	18%	64%	18%	77%
Total	82%	14%	76%	16%	55%	27%	39%	45%	45%	46%	33%	51%	30%	56%	24%	69%

Note: Grey shades represent Beveridge health systems. The question posed in the survey is the following: "In response to the fiscal crisis, to what extent has your organization applied the following cutback measures?".

One set of tools for cutting public spending involves intervening on personnel policies by reducing the number of civil servants, or redefining the employment conditions (tenure or pay). Also, limiting turnover (non-replacement of staff) and pay freezes are measures that governments employ to contain expenditures.

These options can produce short-term positive impact on expenditure growth because of the high proportion of personnel costs (wages, salaries and other allowances) on overall healthcare expenditures (varying between 60-80% [32]), though they may be detrimental to morale and motivation of the staff.

We observed (Table 3) that only three countries relied on staff layoffs to an important extent: Hungary, UK and Estonia, where respectively, 87%, 63% and 47% of respondents reported to have observed a moderate to high introduction of measures reducing the number of public healthcare employees. Also, cuts on salary are rarely introduced, with the exception of Spain and - once again - Estonia where the government mandated pay cuts at all organizational levels. Pay freezes are instead of more widespread usage, with (again) Estonia, Spain and the UK leading the group, but also other countries (Italy, France, The Netherlands) reporting extensive pay freezes. Reduce frontline presence in healthcare delivery system is a seemingly unpopular response to reduce costs (in no country public executives report in a majority way to have witnessed reductions of the front office), while downsizing back office functions is a much more frequently considered option, especially in the UK (74%), France (68%) and Hungary (63%).

Considering program scope and program innovation, European countries are experiencing a massive postponement of new programmes, whereby all countries, with the exception of Norway, report that new programmes have been affected to a large extent. The Scandinavian country is the only one among the surveyed countries that did not report any perceived relevant health policy change due to the financial and fiscal crisis- perhaps for the very reason that Norway did not experience any fiscal crisis at all. More mixed is the picture concerning the cuts to existing programmes, generally high but with country variation.

5. Discussion

To our knowledge, this is the first Europe-wide survey on public executives that aims at detecting trends in the health sector about the cutback management strategies effected during the fiscal crisis triggered by the burst of the financial bubble in 2008; in addition to providing descriptive evidence, in this article we make an attempt to investigate if and the extent to which the respondents' characteristics, the healthcare institutional arrangements and trends in available public healthcare resources are predictors of selecting one of the possible alternative cutback approaches. Moreover, we describe what concrete measures and tools countries introduced in the healthcare sector to cope with the crisis.

The evidence reported in this paper reveals that a variety of cut back measures are deployed to confront the fiscal crisis in the public sector [2]. One key main finding of the survey is that managers report that the actual supply of services was cut as an effect of cost-containment policies: this shows that the crisis lowers the capacity of universal healthcare systems to increasingly or at

least steadily provide protection to citizens and signals that, in addition to the direct effects of the economic downturn on population health and wellbeing [33], there is also an effect attributable to a reduction in the extension of the coverage of citizens' needs. The survey also shows that investments in future programs were reduced or postponed.

Again, respondents unveil that the crisis has had a real impact on the health systems. The survey shows that countries have reacted differently to the crisis and also the picture portrayed by this study is one of differential responses across countries both in terms of the cutback management approach adopted and as regards the specific cost-containment tolls effected. Some policy tools, however, were reported to be more frequently deployed than others; specifically, reducing back-office activities is widely employed instrument, perhaps because it looks more popular with the general public, as it may be seen as a way to reduce waste with no damage to users; indeed, the survey reveals that this strategy has been pursued widely. Clearly, given the complex nature of healthcare organizations and the variety of back-office activities needed to offer health services such a measure may have important draw-backs not easily detectable in the short run, but with salient consequences in the medium-long term. Interventions to reduce front-line services were instead less popular, although in three countries (France, UK and Estonia) more than a third of respondents reported these interventions having been implemented.

The health system administrative tradition – Beveridge-model or Bismarck-model - is to some degree relevant in explaining the approach to cutback management that was adopted. As observed, managers in the UK, Spain, Italy and to a certain extent Norway favour targeted cuts according to priorities (reducing funding for certain areas, while maintaining it for the prioritized ones), while top managers working within Bismarck-based health systems comparatively favour productivity and efficiency savings. As response to the challenges posed by the crisis. The weight of the past and the basic configuration of the health system seem to bear some explanatory power in terms of the main stances in coping with a fiscal crisis. This finding is in line with recent studies investigating path-dependency in coping with the crisis [16]. In Beveridge systems the benefit basket generally gives scope to delivery organizations to work on priorities and to actively manage demand while, in Bismarkian systems levels of care are defined in terms of entitlements of the insured persons [34],thus leaving less room to delivery organizations to define priorities. In this respect the challenges of increasing waiting time is manifest in Beveridge systems, given the principle of universality and equity combined with limited choice of healthcare providers; while Bismark systems in response to rising costs are increasing the level of governmental control and regulation of the plurality of providers by inducing "soft" gatekeeping arrangements because of their traditional plurality, liberty and solidarity system values [28].

At country level, another main finding is that countries during the current crisis, even when operating at increasing levels of public healthcare resources, keep introducing efficiency gains strategies to contain rising costs.

Finally, it has to be noted that the findings of this analysis are subject to limitations. First, we acknowledge a sample unbalance, whereby France, Italy and Austria are over-represented (France with 167 valid responses, Italy and Austria with more than 100 responses versus an average of 62). This can wield an influence on models internal validity and, thus, results should be interpreted with some caution. Also, when we cluster countries according to their institutional arrangements

(Beveridge vs full Bismark vs moderate Bismark) the sample responses are still quite unbalanced (226 vs 335 vs 63 responses respectively). Moreover, item non-response on some variables remains problematic, though we have no evidence of any link with answers to the dependent variable.

An additional limitation is related to the respondents' familiarity with the three cutback approaches and their definition. Specifically, when referring to targeted and proportional cuts, responses might suffer from a relatively unclear differentiation between the two, thus masking the real approach put forward by governments, or be a symptom of the country's mixed cutback approach to the crisis in the health sector. As observed, the survey shows targeted and proportional cuts to be a balanced choice among respondent from Italy, Norway and The Netherlands, in the other cases one approach is markedly preferred against the other (Figure 3). Also, country level variables all treat the country in an aggregate way, thereby potentially overlooking regional (i.e. within-country) differences.

At another and more "foundational" level, a limitation, inherent in this type of research designs, is the exclusive focus on the financial aspects of the impact of the crisis, specifically, on the patterns of responses adopted by the executives to cope with such impact. The dimensions of the outcomes achieved is thus excluded from the scope of the analysis, at least directly; however, perceptions by executives about how the crisis struck the healthcare sector in the country and about the cutback management pattern may indirectly provide an indication of how the healthcare sector is being reshaped.

Having recognised these limitations, evidence provided in this paper has produced empirical knowledge (so far unavailable) which may feed into the debates on the effects of the fiscal crises on the development of the healthcare sector across Europe, and on how public executives are coping with the fiscal crisis.

5. Concluding Remarks

The article provides an overview of the approaches adopted by top executives in the health sector to cope with the fiscal crisis. Diverse responses have been observed, and both respondent characteristics and country (system) level factors have been identified as predictors of differentiated response patterns.

Beyond these considerations, one element stands out from our study, on which we would like to draw the attention of the reader: cost containment policies adopted have had an impact on the healthcare sector of many countries and possibly on the actual scope of the universal healthcare coverage, and to and possibly on the actual scope of the universal healthcare coverage, and top managers had to cope with circumstances and make decisions that have impacted on the organisation of services – a state of affairs that cannot simply be placed under the label of the "reduction of waste", as it is quite often claimed in political rhetoric. The crisis is reshaping in a number of respects the healthcare sectors of European countries – and in many regards not for the better, we might add.

Acknowledgement
The research leading to this paper has received funding from the European Union Seventh Framework Programme under grant agreement No. 266887 (Project COCOPS), Socio-economic Sciences & Humanities.

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